

4
a detection means (4), housed within the casing and responsive to light scattered from the illuminated optical code into the casing through the reading window, wherein the detection means (4) comprises a plurality of light-sensitive elements (5a) capable of converting said light into electric signals representing the light image;

5
an objective lens (9) having an optical axis (Z), the objective lens being housed within the casing between the reading window and the detection means (4), and being located to pick up light scattered from the illuminated optical code and project the picked-up light onto the detection means (4);

6
wherein the illuminating means (3) comprises a first array of light sources (6) and at least a second array of light sources (7), said light sources of said first and second array of light sources being selectively activated in order to define a first illumination configuration, corresponding to a first selection of light sources, for illuminating an optical code placed within a first distance range and at least a second illumination configuration, different from the first illumination configuration and corresponding to a second selection of light sources different from the first selection of light sources, for illuminating an optical code placed within at least a second distance range, said second distance range being different from said first distance range.

37. (Amended) A method of reading optical codes placed at variable distance from an apparatus comprising a means of illuminating an optical code to be read and means of detecting light scattered from the illuminated optical code, which method comprises the following steps:

a) illuminating an optical code to be read so as to define a read scan;

F 11
Cancel
b) picking up the light scattered from the illuminated optical code on the detection means;

c) converting the picked-up light to electric signals representing the light image;

wherein step a) of illuminating the optical code in turn comprises the following steps:

a1) acquiring an operational parameter indicating specific conditions of the reading operation; and

a2) selectively activating, according to the acquired operational parameter, at least one light source of a first array of light sources and/or at least one light source of a second array of light sources so as to define a first illumination configuration, corresponding to a first selection of light sources, for illuminating an optical code placed within a first distance range and at least a second illumination configuration, different from the first illumination configuration and corresponding to a second selection of light sources different from the first selection of light sources, for illuminating an optical code placed within at least a second distance range, said second distance range being different from said first distance range.--
